
Archived Editions (COVID-19 Genomics and Precision Public Health Weekly Update)

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COVID-19 Genomics and Precision Public Health Weekly Update Content

- Pathogen and Human Genomics Studies
- Non-Genomics Precision Health Studies
- News, Reviews and Commentaries

Pathogen and Human Genomics Studies

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Hadi Yousaf B et al. Respiratory medicine 2021 9 106606

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substantial future SARS-CoV-2 variation and may confer protection against potential future sarbecovirus pandemics.

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To support COVID-19 pandemic planning, we develop a model-inference system to estimate epidemiological properties of new SARS-CoV-2 variants of concern using case and mortality data while accounting for under-ascertainment, disease seasonality, non-pharmaceutical interventions, and mass-vaccination. Applying this system to study three variants of concern, we estimate that B.1.1.7 has a 46.6% (95% CI: 32.3–54.6%) transmissibility increase but nominal immune escape from protection induced by prior wild-type infection; B.1.351 has a 32.4% (95% CI: 14.6–48.0%) transmissibility increase and 61.3% (95% CI: 42.6–85.8%) immune escape; and P.1 has a 43.3% (95% CI: 30.3–65.3%) transmissibility increase and 52.5% (95% CI: 0–75.8%) immune escape.

- Effectiveness of mRNA Covid-19 Vaccine among U.S. Health Care Personnel. (<https://pubmed.ncbi.nlm.nih.gov/34551224>)
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